

# HOYA NEW



A photo taken in Palawan Is., Philippines

**Oh There it is !**

A pdf publication devoted to the Genus

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# Contents

When a species is collected from the wild, I feel it is wise to identify it, propagate it and name it. In this way it will eventually get it into commercial channels, be distributed to all those interested in this genus and thus be preserved. If in the future the species is lost through natural causes or forest destruction it will still be here on earth in your collection.

The following new species are presented in PDF format with ISSN number.

## 1. ***Hoya josetteae*** Milton Norman Medina & Kloppenburg

***Hoya josetteae* sp. nov. a new species of *Hoya* (Apocynaceae - Asclepiadaceae) from Maharlika, Marilog District, Davao City, Mindanao Island, Philippines**

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### **Abstract**

This paper describes a new species of *Hoya* (Apocynaceae – Asclepiadaceae) discovered in Marilog District, Mindanao Island, Philippines. This new species is similar to *Hoya wayetii* (Kloppenburger, 1999) and *Hoya anncajanoe* (Kloppenburger & Siar, 2007) but differ in many ways including glabrous pedicle, light yellow color and pollinia having a ovoid form towards the caudicle.

**Keywords:** *Hoya josetteae*, Mindanao, New.

### **Introduction**

Philippines is one of the Mega Diverse countries in the world (Heaney & Regalado, 1998; Catibog-Sinha & Heaney, 2006) having a very high species endemism and diversity. Several mountain areas in the Philippines, particularly in Mindanao are still relatively unexplored for botanical expeditions. Almost every year, new species are being discovered and the number of new species to science continues to rise as plant taxonomists currently searching for more species in this part of the archipelago.

Maharlika, Marilog District in Davao City, Philippines is one of the remaining areas in Mindanao, Philippines that is still dominated by montane forest, mossy forest, agro-

ecosystem habitat types with several small creeks. Due to its relatively high elevation at 1000-1500 masl, the moisture content is very high with temperature range of 21<sup>0</sup>C up to 31<sup>0</sup>C. The area is mostly covered with fogs especially during rainy season. Currently, its biodiversity especially botanical information in this area is still very scarce. In search for *Hoya* species in Mindanao, the primary author decided to take a short expedition in this area.

In this paper, a new addition of *Hoya* species in the Philippines discovered from Maharlika, Marilog District, Davao City is described in details.

## Materials and Methods

Plant materials were gathered from Maharlika, Marilog District, Davao City, Philippines (Fig.1). Morphometry was measured using micrometer caliper, a microscopic observation was based on the living specimen, and photo-documentation was employed for further analysis and comparison. The holotype material was made from a cutting of the plant material collected from the field. Dried specimen was deposited at Central Mindanao University, Museum, Musuan, Bukidnon, Philippines.

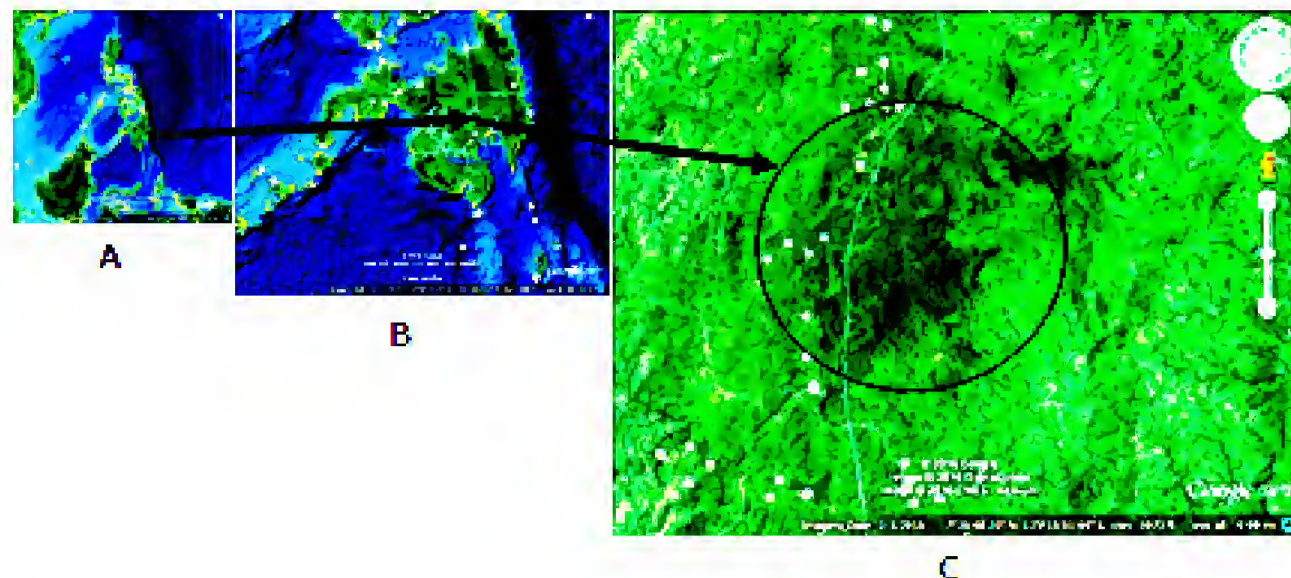


Fig. 1 A. Map of the Philippines; B. Map of Mindanao showing the location of Marilog District; C. Map of Maharlika, Marilog District, Davao City, Philippines.

## Results and Discussion

*Hoya josetteae*, Medina & Kloppenburg sp. nov. 2016, Holotype CMUH 00010811 from Maharlika, Marilog District, Davao City Philippines.

This species is similar in leaf morphology with *Hoya wayetii* (Kloppenburger, 1993). It is entirely glabrous unlike with *Hoya anncajanoae* (Kloppenburger & Siar, 2007) with obsolete margins. Most of the leaves are light to dark green with anthocyanins lining at the margin, although this is not a taxonomic character for this taxon. Pedicle is smaller 0.9-1.8 cm long compared to *H. wayetii* and *H. anncajanoae*; similar to *H. wayetii* glabrous unlike *H. anncajanoae* puberulous; terete; light yellow with red spots. The corolla is very similar with *Hoya wayetii* but a little smaller compared to *Hoya anncajanoae*. The calyx segment of this species is relatively smaller compared to two former species but similar with rounded apex (Table 1). The flower color is rosy white similar to *H. anncajanoae* but differ with *H. wayetii* having dark red flowers. There is no marked central longitudinal ridge on the upper surface of the scales unlike *H. wayetii*,

inner lobes tapering to the apex wide at the median and base lanceolate. The bilobed outer extensions are markedly curved upward at the outer apex. The stylar head is similar with *H. wayetii* in being conical tapering erect covered with a fuzzy pubescence.

Table 1. Comparison of *Hoya josetteae*, morphometry and morphological description with *H. wayetii* and *H. anncajanoae*.

Parts	<i>H. josetteae</i> .	<i>H. wayetii</i>	<i>Hoya anncajanoae</i>
Area of collection	Marilog District, Davao City	Baguio area, Benguet Province, Luzon Philippines	UPLB -
Collection elevation	1,500 masl		300 masl
Leaves	Lanceolate – elliptic; Nerves absent; 2.0-7.02 cm long; 1.02-2.07 cm width;	5-12.5 cm long; 1.5-2.7 cm wide, thick, succulent, convex to nearly flat on the upper glabrous surface,	Lanceolate – elliptic; Nerves obsolete – 10 or so nerves on each side of midrib;
Number of flowers in cluster	9-13	ca. 21	ca. 23
Lateral view corona	Pointed at the center		
Pedicel (Length)	0.9-1.8 cm long; glabrous; terete; light yellow with red spots.	1.0-2.0 cm long; 0.11 cm diameter; glabrous medium shiny green; apex rounded,	1.8 - 3.3 cm
Petiole	Glabrous; thick; terete; 0.03-1.07 cm long;	0.5-1.5 cm long; terete; thick, glabrous;	Puberulous; 2 cm long; terete;
Calyx (Sepal)	Width: 0.14 cm Length: 0.10 cm Stout (broad); reddish;	lobes 0.17 cm tall; 0.13 cm at widest (at overlap); bright pale green,	0.15 cm long; 0.17 cm widest; outside hirsute, ovate; inside slick, glabrous
Ovaries	Ovaries flattened at the tip; (bottle- shaped) protruding at the base, tapering to the tip; 0.10 cm tall; 0.13 cm		0.15 cm tall; 0.12 cm wide
Oblique dorsal view of corolla (Petals)	Revolute	Revolute	Revolute
Corolla:	Corolla color rosy white; revolute dorsal highly	Corolla color deep rose red; revolute outside glabrous,	Corolla color deep rose red; revolute



	pubescent; ventral glabrous;	dorsl pubescent;	
a. Sinus – Sinus	0.32 cm	0.33 cm	0.41 cm
b. Sinus – Apex	0.38 cm	0.35 cm	0.50 cm
c. Sinus – Center	0.23 cm		0.35 cm
d. Apex – Center	0.55 cm	0.80 cm	0.85 cm
e. Widest	0.33 cm	0.38 cm	0.42 cm
Corona:	Color yellow in the outer lobe; inner lobe raised at the center;	Color deep red except for apical area of outer lobe yellow;	Pale rose
a. Apex – Apex	0.23 cm		0.28 cm
b. Apex – Center	0.03cm		0.31 cm
c. widest dorsal	0.16 cm	0.17 cm	0.13 cm
<b>Stylar crown</b>			capitate
<b>Pollinia</b>	inwardly truncate; ovoid toward the caudicle	inwardly truncate; tapering toward the caudicle	
a. length	0.46 mm	.475 mm	0.52 mm
b. widest	0.18 mm	0.145 mm	0.20 mm
<b>Retinaculum</b>			
a. Length	0.14 mm	0.16 mm & narrow	0.12 mm
b. Shoulder	0.06 mm		0.09 mm
c. Waist	0.05 mm		0.05 mm
d. Hip	0.07 mm		0.08 mm
e. Ext.	0.045 mm		0.07 mm
<b>Caudicle</b>	0.14 x 0.10 mm		0.11 mm
	C (clear)	C (clear)	C (clear)
<b>Pollinia inner end type</b>	T (tapered)	T (tapered)	T (tapered)
<b>Translator/caudicle type</b>	fb/cw	fb/cw	fb/cw
<b>Retinacula type</b>	S (shield)	E (elongate)	S (shield)
Peduncle length	0.4-3.2 cm long; terete; glabrous; white to light brown;	7.0 cm long terete, glabrous, deep green.	
Stem diameter	0.2-0.5 cm		

Table 2. Leaf morphometry of *H. josetteae*.

<i>Hoya josetteana</i> sp.nov.	L1	L2	L3	L4	L5	L6	L7	L8	L9	L 10	Range
Leaf width	1.03	2.0	2.0	2.07	1.08	1.06	2.0	1.09	1.02	2.01	1.02-2.07 cm
Leaf length	2.0	5.02	6.0	7.02	5.07	3.04	4.07	6.07	2.04	5.0	2.0-7.02 cm
Petiole	0.03	0.06	1.07	1.01	0.08	0.04	0.07	0.08	0.05	1.0	0.03-1.07 cm



**Petiole.** Glabrous; thick; terete; 0.03-1.07 cm long;



**Leaf Blade.** Lanceolate – elliptic; Nerves not visible; 2.0-7.02 cm long; 1.02-2.07 cm width.



**Peduncle.** 0.4-3.2 cm long; terete; glabrous; white to light brown.



**Pedicel.** Curved, 0.9-1.8 cm long range; glabrous; terete; light yellow with red spots.

**Calyx.** Base bulbous, 0.14 cm width; 0.10 cm long; apex rounded; reddish; broader at the base; ventral slick, glabrous; dorsal puberulous except apical area is glabrous; ligule present at the sinuses.



**Corolla:** Corolla color rosy white; revolute; outside highly pubescent; inside glabrous; Sinus – Sinus 0.32 cm; Sinus – Apex 0.38 cm; Sinus – Center 0.23 cm; Apex – Center 0.55 cm; Widest 0.33 cm.



**Corona:** Color yellow in the outer lobe; inner lobe raised at the center, glabrous: Apex – Apex 0.23 cm; Apex – Center 0.03 cm; Apex – end 0.27; widest dorsal 0.16 cm; Ret. – ret/center 0.16 cm; Aw.-aw/center 0.20 cm.

**Ovaries:** dome shaped, glabrous, apex “kissing” 0.10 cm long and 0.13 wide at the base.





**Pollinarium.** Magnified ca. 200x.  
Inwardly truncate; ovoid toward the caudicle.

**Pollinium**

length	0.46 mm
widest	0.18 mm

**Retinaculum**

length	0.14 mm
shoulder	0.06 mm
waist	0.05 mm
hip	0.07 mm
ext.	0.045 mm

**Translator:**

length	0.18 mm
widest	0.09 mm

**Caudicle:** 0.14 x 0.10 mm

**Translator/caudicle type:** fb/cw

**Pollinia inner end type:** T (tapered)

**Caudicle:** C (clear)

**Retinaculum type:** HB (hip broader than shoulder)



**A**



**B**

A. Lateral view of the flower cluster; B. Flower cluster showing revolute pubescent corolla with bilobed corona manifesting that this species clearly belongs to Acanthostemma Section.



**Etymology:**

*Hoya josetteae* **sp. nov.** named after the wife of the first author: Josette Rose A. Medina who took care of his Hoya collections while he is away doing field work.

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Reduced copy of the Holotype deposited at the Central Mindanao University Museum,  
Musuan, Bukidnon. Philippines.

